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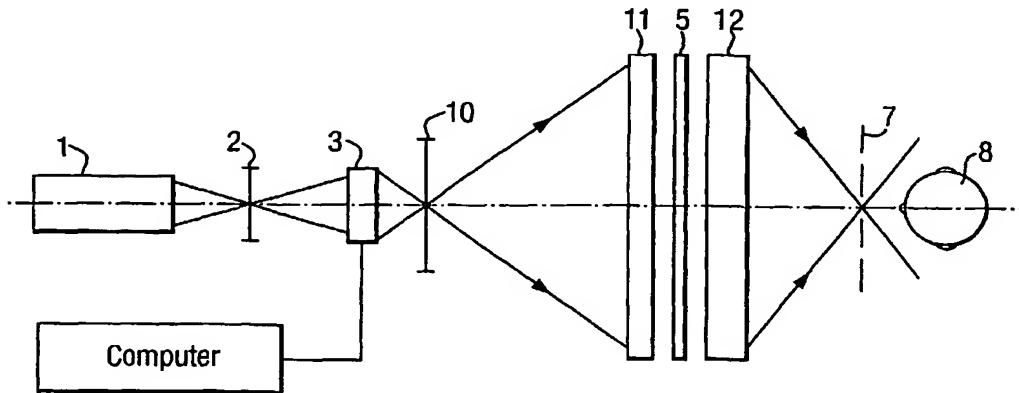
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## Declaration under Rule 4.17:

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*[Continued on next page]*

(54) Title: RECONFIGURABLE SPATIAL LIGHT MODULATORS



(57) Abstract: This invention relates to reconfigurable spatial light modulators (SLM) incorporating a scatter plate (5). Computer generated diffraction patterns or holograms may be loaded on the (SLM) either as a single frame or as a series of frames for observation by an observer. In a preferred embodiment both an electrically addressable spatial light modulator (EASLM) and an optically addressable spatial light modulator (OASLM) are used. The (OASLM) may be formed of several smaller (OASLMs) arranged in a matrix format. The faster (EASLM) forms a light pattern on sub-areas of the large (OASLM) in turn to give a large display. The scatter plate (5) is arranged at the output of the (SLM) nearest an observer. This scatter plate has a known characteristic and serves to increase the field of view and/or reduce the number of pixels required to give a holographic or two dimensional displays. Prior to producing a display, the diffraction patterns, holograms, or image in the computer is modified to take account of the properties of the scatter plate; a modified computer generated diffraction pattern, hologram, or image is then displayed to an observer. The system may also be used for optical switching.

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## INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER  
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According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, INSPEC, COMPENDEX, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 450 644 A (MATSUSHITA ELECTRIC IND CO LTD) 9 October 1991 (1991-10-09) column 3, line 26 - column 4, line 52; figure 2 -----	1-19
A	K.A. HAINES ET AL.: "A technique for Bandwidth Reduction in Holographic Systems" PROCEEDINGS OF THE IEEE, July 1967 (1967-07), pages 1512-1513, XP0008029131 cited in the application page 1512, right-hand column -----	1,19,20
A	US 5 461 475 A (LERNER JEREMY ET AL) 24 October 1995 (1995-10-24) figure 3a ----- -/-	1

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

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- "&" document member of the same patent family

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 943 145 A (CURTIS KEVIN ET AL) 24 August 1999 (1999-08-24) figure w -----	1

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US 5943145	A	24-08-1999	NONE	